P.nolan

```
                  RAW SEQUENCE LISTING                DATE: 01/19/2001
                  PATENT APPLICATION:  US/09/141,220C      TIME: 14:48:27

                  Input Set : A:\Hs1021.app
                  Output Set: N:\CRF3\01192001\I141220C.raw

  3 <110> APPLICANT: Bannon, Gary A
  4         Burks, A Wesley
  5         Sampson, Hugh
  6         Sosin, Howard
  8 <120> TITLE OF INVENTION: Methods and Reagents for Decreasing Clinical Reaction
  9         to Allergy
 11 <130> FILE REFERENCE: HS102
 13 <140> CURRENT APPLICATION NUMBER: 09/141,220C
 14 <141> CURRENT FILING DATE: 1998-08-27
 16 <150> PRIOR APPLICATION NUMBER: PCT/US96/15222
 17 <151> PRIOR FILING DATE: 1996-09-23
 19 <150> PRIOR APPLICATION NUMBER: 60/074590
 20 <151> PRIOR FILING DATE: 1998-02-13
 22 <150> PRIOR APPLICATION NUMBER: 60/074624
 23 <151> PRIOR FILING DATE: 1998-02-13
 25 <150> PRIOR APPLICATION NUMBER: 60/074633
 26 <151> PRIOR FILING DATE: 1998-02-13
 28 <160> NUMBER OF SEQ ID NOS: 6
 30 <170> SOFTWARE: PatentIn Ver. 2.1
 32 <210> SEQ ID NO: 1
 33 <211> LENGTH: 1930
 34 <212> TYPE: DNA
 35 <213> ORGANISM: Peanut
 37 <400> SEQUENCE: 1
 38 aataatcata tatattcatc aatcatctat ataagtagta gcaggagcaa tgagagggag 60
 39 ggtttctcca ctgatgctgt tgctagggat ccttgtcctg gcttcagttt ctgcaacgca 120
 40 tgccaagtca tcaccttacc agaagaaaac agagaacccc tgcgcccaga ggtgcctcca 180
 41 gagttgtcaa caggaaccgg atgacttgaa gcaaaaggca tgcgagtctc gctgcaccaa 240
 42 gctcgagtat gatcctcgtt gtgtctatga tcctcgagga cacactggca ccaccaacca 300
 43 acgttcccct ccagggagc ggacacgtgg ccgccaaccc ggagactacg atgatgaccg 360
 44 ccgtcaaccc cgaagagagg aaggaggccg atgggggacca gctggaccga gggagcgtga 420
 45 aagagaagaa gactggagac aaccaagaga agattggagg cgaccaagtc atcagcagcc 480
 46 acggaaaata aggcccgaag gaagagaagg agaacaagag tggggaacac caggtagcca 540
 47 tgtgagggaa gaaacatctc ggaacaaccc tttctacttc ccgtcaaggc ggtttagcac 600
 48 ccgctacggg aaccaaaacg gtaggatccg ggtcctgcag aggtttgacc aaaggtcaag 660
 49 gcagtttcag aatctccaga atcaccgtat tgtgcagatc gaggccaaac ctaacactct 720
 50 tgttcttccc aagcacgctg atgctgataa catccttgtt atccagcaag ggcaagccac 780
 51 cgtgaccgta gcaaatggca ataacagaaa gagctttaat cttgacgagg gccatgcact 840
 52 cagaatccca tccggtttca tttcctacat cttgaaccgc catgacaacc agaacctcag 900
 53 agtagctaaa atctccatgc ccgttaacac acccggccag tttgaggatt tcttcccggc 960
 54 gagcagccga gaccaatcat cctacttgca gggcttcagc aggaatacgt tggaggccgc 1020
 55 cttcaatgcg gaattcaatg agatacggag ggtgctgtta gaagagaatg caggaggtga 1080
 56 gcaagaggag agagggcaga ggcgatggag tactcggagt agtgagaaca atgaaggagt 1140
 57 gatagtcaaa gtgtcaaagg agcacgttga agaacttact aagcacgcta aatccgtctc 1200
 58 aaagaaaagc tccgaagaag agggagatat caccaacccca atcaacttga gagaaggcga 1260
 59 gcccgatctt tctaacaact ttgggaagtt atttgaggtg aagccagaca agaagaaccc 1320
 60 ccagcttcag gacctggaca tgatgctcac ctgtgtagag atcaaagaag gagctttgat 1380
```

RAW SEQUENCE LISTING   DATE: 01/19/2001
PATENT APPLICATION: US/09/141,220C   TIME: 14:48:27

Input Set : A:\Hs1021.app
Output Set: N:\CRF3\01192001\I141220C.raw

```
61 gctcccacac ttcaactcaa aggccatggt tatcgtcgtc gtcaacaaag gaactggaaa 1440
62 ccttgaactc gtggctgtaa gaaaagagca acaacagagg ggacggcggg aagaaggaga 1500
63 ggacgaagac gaagaagagg agggaagtaa cagagaggtg cgtaggtaca cagcgaggtt 1560
64 gaaggaaggc gatgtgttca tcatgccagc agctcatcca gtagccatca acgcttcctc 1620
65 cgaactccat ctgcttggct tcggtatcaa cgctgaaaac aaccacagaa tcttccttgc 1680
66 aggtgataag gacaatgtga tagaccagat agagaagcaa gcgaaggatt tagcattccc 1740
67 tggtcgggt gaacaagttg agaagctcat caaaaaccag aaggaatctc actttgtgag 1800
68 tgctcgtcct caatctcaat ctcaatctcc gtcgtctcct gagaaagagt ctcctgagaa 1860
69 agaggatcaa gaggaggaaa accaaggagg gaagggtcca ctcctttcaa ttttgaaggc 1920
70 ttttaactga                                                      1930
73 <210> SEQ ID NO: 2
74 <211> LENGTH: 626
75 <212> TYPE: PRT
76 <213> ORGANISM: Peanut
78 <220> FEATURE:
79 <221> NAME/KEY: PEPTIDE
80 <222> LOCATION: (25)..(34)
81 <223> OTHER INFORMATION: peptide 1
83 <220> FEATURE:
84 <221> NAME/KEY: PEPTIDE
85 <222> LOCATION: (48)..(57)
86 <223> OTHER INFORMATION: peptide 2
88 <220> FEATURE:
89 <221> NAME/KEY: PEPTIDE
90 <222> LOCATION: (65)..(74)
91 <223> OTHER INFORMATION: peptide 3
93 <220> FEATURE:
94 <221> NAME/KEY: PEPTIDE
95 <222> LOCATION: (89)..(98)
96 <223> OTHER INFORMATION: peptide 4
98 <220> FEATURE:
99 <221> NAME/KEY: PEPTIDE
100 <222> LOCATION: (97)..(106)
101 <223> OTHER INFORMATION: peptide 5
103 <220> FEATURE:
104 <221> NAME/KEY: PEPTIDE
105 <222> LOCATION: (107)..(116)
106 <223> OTHER INFORMATION: peptide 6
108 <220> FEATURE:
109 <221> NAME/KEY: PEPTIDE
110 <222> LOCATION: (123)..(132)
111 <223> OTHER INFORMATION: peptide 7
113 <220> FEATURE:
114 <221> NAME/KEY: PEPTIDE
115 <222> LOCATION: (134)..(143)
116 <223> OTHER INFORMATION: peptide 8
118 <220> FEATURE:
119 <221> NAME/KEY: PEPTIDE
120 <222> LOCATION: (143)..(152)
```

RAW SEQUENCE LISTING   DATE: 01/19/2001
PATENT APPLICATION: US/09/141,220C   TIME: 14:48:27

Input Set : A:\Hs1021.app
Output Set: N:\CRF3\01192001\I141220C.raw

```
121 <223> OTHER INFORMATION: peptide 9
123 <220> FEATURE:
124 <221> NAME/KEY: PEPTIDE
125 <222> LOCATION: (294)..(303)
126 <223> OTHER INFORMATION: peptide 10
128 <220> FEATURE:
129 <221> NAME/KEY: PEPTIDE
130 <222> LOCATION: (311)..(320)
131 <223> OTHER INFORMATION: peptide 11
133 <220> FEATURE:
134 <221> NAME/KEY: PEPTIDE
135 <222> LOCATION: (325)..(334)
136 <223> OTHER INFORMATION: peptide 12
138 <220> FEATURE:
139 <221> NAME/KEY: PEPTIDE
140 <222> LOCATION: (344)..(353)
141 <223> OTHER INFORMATION: peptide 13
143 <220> FEATURE:
144 <221> NAME/KEY: PEPTIDE
145 <222> LOCATION: (393)..(402)
146 <223> OTHER INFORMATION: peptide 14
148 <220> FEATURE:
149 <221> NAME/KEY: PEPTIDE
150 <222> LOCATION: (409)..(418)
151 <223> OTHER INFORMATION: peptide 15
153 <220> FEATURE:
154 <221> NAME/KEY: PEPTIDE
155 <222> LOCATION: (461)..(470)
156 <223> OTHER INFORMATION: peptide 16
158 <220> FEATURE:
159 <221> NAME/KEY: PEPTIDE
160 <222> LOCATION: (498)..(507)
161 <223> OTHER INFORMATION: peptide 17
163 <220> FEATURE:
164 <221> NAME/KEY: PEPTIDE
165 <222> LOCATION: (525)..(534)
166 <223> OTHER INFORMATION: peptide 18
168 <220> FEATURE:
169 <221> NAME/KEY: PEPTIDE
170 <222> LOCATION: (539)..(548)
171 <223> OTHER INFORMATION: peptide 19
173 <220> FEATURE:
174 <221> NAME/KEY: PEPTIDE
175 <222> LOCATION: (551)..(560)
176 <223> OTHER INFORMATION: peptide 20
178 <220> FEATURE:
179 <221> NAME/KEY: PEPTIDE
180 <222> LOCATION: (559)..(568)
181 <223> OTHER INFORMATION: peptide 21
```

```
183 <220> FEATURE:
184 <221> NAME/KEY: PEPTIDE
185 <222> LOCATION: (578)..(587)
186 <223> OTHER INFORMATION: peptide 22

188 <220> FEATURE:
189 <221> NAME/KEY: PEPTIDE
190 <222> LOCATION: (597)..(606)
191 <223> OTHER INFORMATION: peptide 23

193 <400> SEQUENCE: 2
194 Met Arg Gly Arg Val Ser Pro Leu Met Leu Leu Leu Gly Ile Leu Val
195  1               5                  10                  15
197 Leu Ala Ser Val Ser Ala Thr His Ala Lys Ser Ser Pro Tyr Gln Lys
198              20                  25                  30
200 Lys Thr Glu Asn Pro Cys Ala Gln Arg Cys Leu Gln Ser Cys Gln Gln
201          35                  40                  45
203 Glu Pro Asp Asp Leu Lys Gln Lys Ala Cys Glu Ser Arg Cys Thr Lys
204      50                  55                  60
206 Leu Glu Tyr Asp Pro Arg Leu Val Tyr Asp Pro Arg Gly His Thr Gly
207  65                  70                  75                  80
209 Thr Thr Asn Gln Arg Ser Pro Pro Gly Glu Arg Thr Arg Gly Arg Gln
210              85                  90                  95
212 Pro Gly Asp Tyr Asp Asp Asp Arg Arg Gln Pro Arg Arg Glu Glu Gly
213             100                 105                 110
215 Gly Arg Trp Gly Pro Ala Gly Pro Arg Glu Arg Glu Arg Glu Glu Asp
216             115                 120                 125
218 Trp Arg Gln Pro Arg Glu Asp Trp Arg Arg Pro Ser His Gln Gln Pro
219         130                 135                 140
221 Arg Lys Ile Arg Pro Glu Gly Arg Glu Gly Glu Gln Glu Trp Gly Thr
222 145                 150                 155                 160
224 Pro Gly Ser His Val Arg Glu Glu Thr Ser Arg Asn Asn Pro Phe Tyr
225             165                 170                 175
227 Phe Pro Ser Arg Arg Phe Ser Thr Arg Tyr Gly Asn Gln Asn Gly Arg
228             180                 185                 190
230 Ile Arg Val Leu Gln Arg Phe Asp Gln Arg Ser Arg Gln Phe Gln Asn
231             195                 200                 205
233 Leu Gln Asn His Arg Ile Val Gln Ile Glu Ala Lys Pro Asn Thr Leu
234         210                 215                 220
236 Val Leu Pro Lys His Ala Asp Ala Asp Asn Ile Leu Val Ile Gln Gln
237 225                 230                 235                 240
239 Gly Gln Ala Thr Val Thr Val Ala Asn Gly Asn Asn Arg Lys Ser Phe
240             245                 250                 255
242 Asn Leu Asp Glu Gly His Ala Leu Arg Ile Pro Ser Gly Phe Ile Ser
243             260                 265                 270
245 Tyr Ile Leu Asn Arg His Asp Asn Gln Asn Leu Arg Val Ala Lys Ile
246         275                 280                 285
248 Ser Met Pro Val Asn Thr Pro Gly Gln Phe Glu Asp Phe Phe Pro Ala
249     290                 295                 300
251 Ser Ser Arg Asp Gln Ser Ser Tyr Leu Gln Glu Phe Ser Arg Asn Thr
252 305                 310                 315                 320
```

RAW SEQUENCE LISTING   DATE: 01/19/2001
PATENT APPLICATION: US/09/141,220C   TIME: 14:48:27

Input Set : A:\Hs1021.app
Output Set: N:\CRF3\01192001\I141220C.raw

```
254 Leu Glu Ala Ala Phe Asn Ala Glu Phe Asn Glu Ile Arg Arg Val Leu
255                  325              330              335
257 Leu Glu Glu Asn Ala Gly Gly Glu Gln Glu Glu Arg Gly Gln Arg Arg
258                  340              345              350
260 Trp Ser Thr Arg Ser Ser Glu Asn Asn Glu Gly Val Ile Val Lys Val
261          355              360              365
263 Ser Lys Glu His Val Glu Glu Leu Thr Lys His Ala Lys Ser Val Ser
264      370              375              380
266 Lys Lys Gly Ser Glu Glu Glu Gly Asp Ile Thr Asn Pro Ile Asn Leu
267 385              390              395              400
269 Arg Glu Gly Glu Pro Asp Leu Ser Asn Asn Phe Gly Lys Leu Phe Glu
270              405              410              415
272 Val Lys Pro Asp Lys Lys Asn Pro Gln Leu Gln Asp Leu Asp Met Met
273              420              425              430
275 Leu Thr Cys Val Glu Ile Lys Glu Gly Ala Leu Met Leu Pro His Phe
276          435              440              445
278 Asn Ser Lys Ala Met Val Ile Val Val Val Asn Lys Gly Thr Gly Asn
279      450              455              460
281 Leu Glu Leu Val Ala Val Arg Lys Glu Gln Gln Gln Arg Gly Arg Arg
282 465              470              475              480
284 Glu Glu Glu Glu Asp Glu Asp Glu Glu Glu Gly Ser Asn Arg Glu
285              485              490              495
287 Val Arg Arg Tyr Thr Ala Arg Leu Lys Glu Gly Asp Val Phe Ile Met
288          500              505              510
290 Pro Ala Ala His Pro Val Ala Ile Asn Ala Ser Ser Glu Leu His Leu
291          515              520              525
293 Leu Gly Phe Gly Ile Asn Ala Glu Asn Asn His Arg Ile Phe Leu Ala
294      530              535              540
296 Gly Asp Lys Asp Asn Val Ile Asp Gln Ile Glu Lys Gln Ala Lys Asp
297 545              550              555              560
299 Leu Ala Phe Pro Gly Ser Gly Glu Gln Val Glu Lys Leu Ile Lys Asn
300              565              570              575
302 Gln Lys Glu Ser His Phe Val Ser Ala Arg Pro Gln Ser Gln Ser Gln
303          580              585              590
305 Ser Pro Ser Ser Pro Glu Lys Glu Ser Pro Glu Lys Glu Asp Gln Glu
306          595              600              605
308 Glu Glu Asn Gln Gly Gly Lys Gly Pro Leu Leu Ser Ile Leu Lys Ala
309      610              615              620
311 Phe Asn
312 625
315 <210> SEQ ID NO: 3
316 <211> LENGTH: 474
317 <212> TYPE: DNA
318 <213> ORGANISM: Peanut
320 <400> SEQUENCE: 3
321 ctcaccatac tagtagccct cgcccttttc ctcctcgctg cccacgcatc tgcgaggcag 60
322 cagtgggaac tccaaggaga cagaagatgc cagagccagc tcgagagggc gaacctgagg 120
323 ccctgcgagc aacatctcat gcagaagatc caacgtgacg aggattcata tgaacgggac 180
324 ccgtacagcc ctagtcagga tccgtacagc cctagtccat atgatcggag aggcgctgga 240
```

VERIFICATION SUMMARY   DATE: 01/19/2001
PATENT APPLICATION: US/09/141,220C   TIME: 14:48:28

Input Set : A:\Hs1021.app
Output Set: N:\CRF3\01192001\I141220C.raw